

Work Order ID 84064

May-03-12 7:25:22 AM

Ship Monday May 7
84064

Page 1

Item ID: D350-591-312

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12 Start Qty: 5.00

5

Cust Item ID:

Required Date: 5/07/12 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan: *a*

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3272

Rev B

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and type labels as per PPP D350-591-312 CHG001

Sollos

110

0.00

110

Large Fab

Large Fab

Memo

0.00

Large Fab

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod *119785*

3-Grind End Plate flush *120354*

5 *φ*

12.05.03

12.05.03

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Page 2

Item ID: D350-591-312

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12 Start Qty: 5.00 ***5***

Cust Item ID:

Required Date: 5/07/12 Req'd Qty: 5.00 ***5***

Customer:

Reference:

Approvals: Process Plan: Date:

Run Start ***NR1***

QC: Date:

Stop ***NR2***

Tooling: Date:

SPC (Y/N): Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

120

QC9- Inspect visual per QSI004- Fusion Welds

0.00

120

QC

Memo

0.00

Quality Control

***5**

0

BE 12/05/03

130

QC5- Inspect part completeness to step on W/O

0.00

130

QC

Memo

0.00

Quality Control

876563

5

24

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

5

0

Ar 12.05.03

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Item ID: D350-591-312

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N900040100

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Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12 Start Qty: 5.00

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Cust Item ID:

Required Date: 5/07/12 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

QC3- Inspect Part Finish

0.00

150

QC

Memo

0.00

Quality Control

180

Large Fab

0.00

180

Large Fab

Memo

0.00

Large Fab

1-Assemble Leg Assembly as per Dwg D3272.

2-Leave one rivet out until welding is complete.

3-Bevel Aft end for welding

4-Inspect for foreign object as per QSI 024

5-Weld Aft End Plate as per QSI 004 & Dwg D3272
A/RAluminum Rod 119785

6-Grind End Plate flush

7-Install last rivet as per Dwg.



5

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At
12.05.03

pl
12.05.04

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May-03-12 7:25:22 AM

Item ID: D350-591-312

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Heli-Access-Step, Long RH

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Cust Item ID:

Required Date: 5/07/12 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

220

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

220

Powdercoat

Powder Coating

Memo

0.00

START TIME: 11:30

OVEN TEMPERATURE: 320°F

FINISH TIME: 12:00

SX
RH

MK
12/05/04

230

Wing Walk as per dwg QSI005 4.4 Batch 101121

0.00

230

HandFinish

Hand Finishing

Memo

0.00

5

BLD 54

240

QC3- Inspect Part Finish

0.00

240

QC

Quality Control

Memo

0.00

8/10/04

5
RH

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Item ID: D350-591-312

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12 Start Qty: 5.00

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Cust Item ID:

Required Date: 5/07/12 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

250

Pick Kit

0.00

250

Packaging

Memo

0.00

Packaging

260

QC4- 100% Inspect kits for completeness

0.00

260

QC

Memo

0.00

Quality Control

270

Packaging

0.00

270

Packaging

Memo

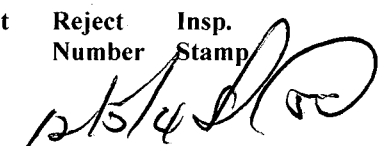
0.00

Packaging

Identify and pack for shipping as per PPPD350-591-312

Location: _____

SHIP

75
R4

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Item ID: D350-591-312

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12 Start Qty: 5.00

5

Cust Item ID:

Required Date: 5/07/12 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

280

QC21- Final Inspection - Work Order Release

0.00

280

QC

Memo

0.00

Quality Control

MLJ 12/05/08

MF 12-05-07

Picklist Print

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Page 1

Work Order ID: 84064

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12

Required Date: 5/07/12

Start Qty: 5.00

Required Qty: 5.00

Comments:

IPP Rev:A04.03.22New issue KJ/RF

IPP Rev:B 07-06-09 Added D3572-1 JLM

IPP Rev:C 08-04-02 ECN1163 DD verified by:EC

IPP Rev:D 08-04-08 ECN1164 DD verified by:EC

10.04.28 verified by:EC

IPP Rev:D fixe route seq in bom DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3272-1 Step		Manufactured	No			110	Each	20.0000	1	5			
-----------------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

Location	Loc Qty	Loc Code
----------	---------	----------

ST	B84100	-10
WA		30
	83729	10
	83730	10

5

12.05.03



D3067-1

End Plate

	Manufactured	No			110	Each	142.0000	1	5
--	--------------	----	--	--	-----	------	----------	---	---

Location	Loc Qty	Loc Code
----------	---------	----------

WA	B80881	78
	78608	4
	81969	74
WA016		64
	67582	2
	68214	1
	79607	1
	83053	60

5

12.05.04

Picklist Print

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Work Order ID: 84064

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12

Required Date: 5/07/12

Start Qty: 5.00

Required Qty: 5.00

D3219-1 Manufactured No 110 Each 283.0000 2 10
Plate

ll 12.05.03

Location	Loc Qty	Loc Code
WA	84	
82221	84	
WA016	78	
73410	12	
77674	6	
<u>81292</u>	60	<u>10</u>
WA017	121	
81971	121	

D3066-1 Manufactured No 180 Each 61.0000 2 10
Spacer

Location	Loc Qty	Loc Code
WA	61	
<u>81968</u>	61	<u>10</u>

Ac 12.05.03

MS20600-AD4W4 Purchased No 180 Each 2,724.0000 16 80
Rivets

Location	Loc Qty	Loc Code
ST321	2724	
121011	9	
<u>121340</u>	715	<u>80</u>
<u>121444</u>	2000	

Ac 12.05.03

D3065-041 Manufactured No 180 Each 39.0000 1 5
Step Leg Assembly Hi

Location	Loc Qty	Loc Code
WA	39	
66149	0	
79336	1	
<u>83368</u>	38	<u>5</u>

Ac 12.05.03

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Shop Packet Print

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Picklist Print

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Page 3

Work Order ID: 84064

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12

Required Date: 5/07/12

Start Qty: 5.00

Required Qty: 5.00

D3067-1
End Plate

Manufactured No

180 Each 142.0000 1 5

12.05.04

Location	Loc Qty	Loc Code
WA	78	
78608	4	
81969	74	
WA016	64	
67582	2	
68214	1	
79607	1	
83053	60	

Purchased No

250 Each 78.0000 2 10

Location	Loc Qty	Loc Code
ST353	78	
120644	28	
120717	50	

Manufactured No

250 Each 99.0000 2 10

Location	Loc Qty	Loc Code
ST481	99	
81970	99	

Manufactured No

250 Each 48.0000 1 5

Location	Loc Qty	Loc Code
ST481	48	
82015	40	
83361	8	

D3355-1
Bolt

D3235-1
Mounting Lug

D3278-041
Support Assembly

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Page 4

Work Order ID: 84064

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12

Required Date: 5/07/12

Start Qty: 5.00

Required Qty: 5.00

AN960JD416

NAS1149D0463J

Purchased

No

250

Each

30.0000

80

Washer

Location

Loc Qty

Loc Code

ST351

30

116289

10

119097

20

AN960JD516

NAS1149D0563J

Purchased

No

250

Each

0.0000

20

Washer

AN5-36A

Purchased

No

250

Each

124.0000

10

Bolt

Location

Loc Qty

Loc Code

340

100

121181

100

ST340

24

120731

24

D2618

Manufactured

No

250

Each

150.0000

10

Bushing

Location

Loc Qty

Loc Code

ST012

150

76130

2

80474

148

D2230-3

Manufactured

No

250

Each

7.0000

20

Lug

Location

Loc Qty

Loc Code

ST480

7

53881

4

70973

1

81558

2

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Picklist Print

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Work Order ID: 84064

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12

Required Date: 5/07/12

Start Qty: 5.00

Required Qty: 5.00

D2856-400

Manufactured No

250 f 311.5345 1.2 6

Abrasion Strip

cut (2) D2856-400-720 as per dwg

Location	Loc Qty	Loc Code
ST403	216	
81875	216	
ST409	95.5345	
63735	0.6696	
68076	0.3149	
71164	8.46	
79551	86.09	

MS21042L3

Nut

Purchased No

250 Each 3,076.0000 2 10

Location	Loc Qty	Loc Code
ST300	3076	
117441	16	
117885	32	
118451	5	
118927	3	
119017	1131	
119075	138	
121349	751	
121444	1000	

AN4-13A

Bolt

Purchased No

250 Each 793.0000 8 40

Location	Loc Qty	Loc Code
ST357	793	
118838	8	
119449	39	
120187	19	
120422	2	
120770	400	
121162	325	

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Picklist Print

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Work Order ID: 84064

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step, Long RH

Start Date: 5/02/12

Required Date: 5/07/12

Start Qty: 5.00

Required Qty: 5.00

MS21042L5

Nut

Purchased

No

250

Each

1,221.0000

2

10

Location

Loc Qty

Loc Code

ST300

1221

116105

5

116548

43

117611

30

119109

1143

MS21042L4

Nut

Purchased

No

250

Each

5,262.0000

8

40

Location

Loc Qty

Loc Code

ST300

5262

119075

312

121011

1950

121444

3000

AN960JD10

Washer

NAS1149D0363J

Purchased

No

250

Each

0.0000

4

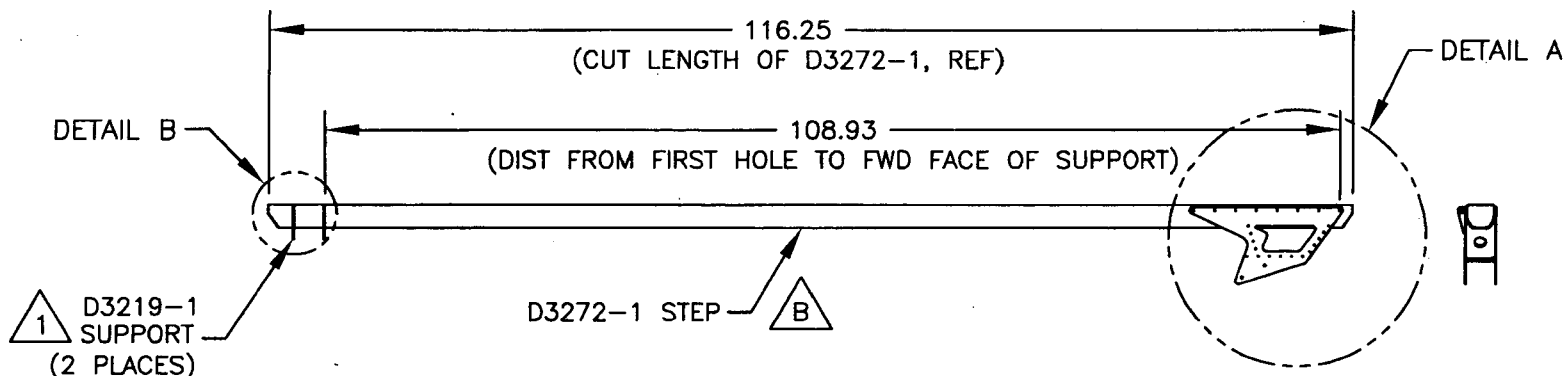
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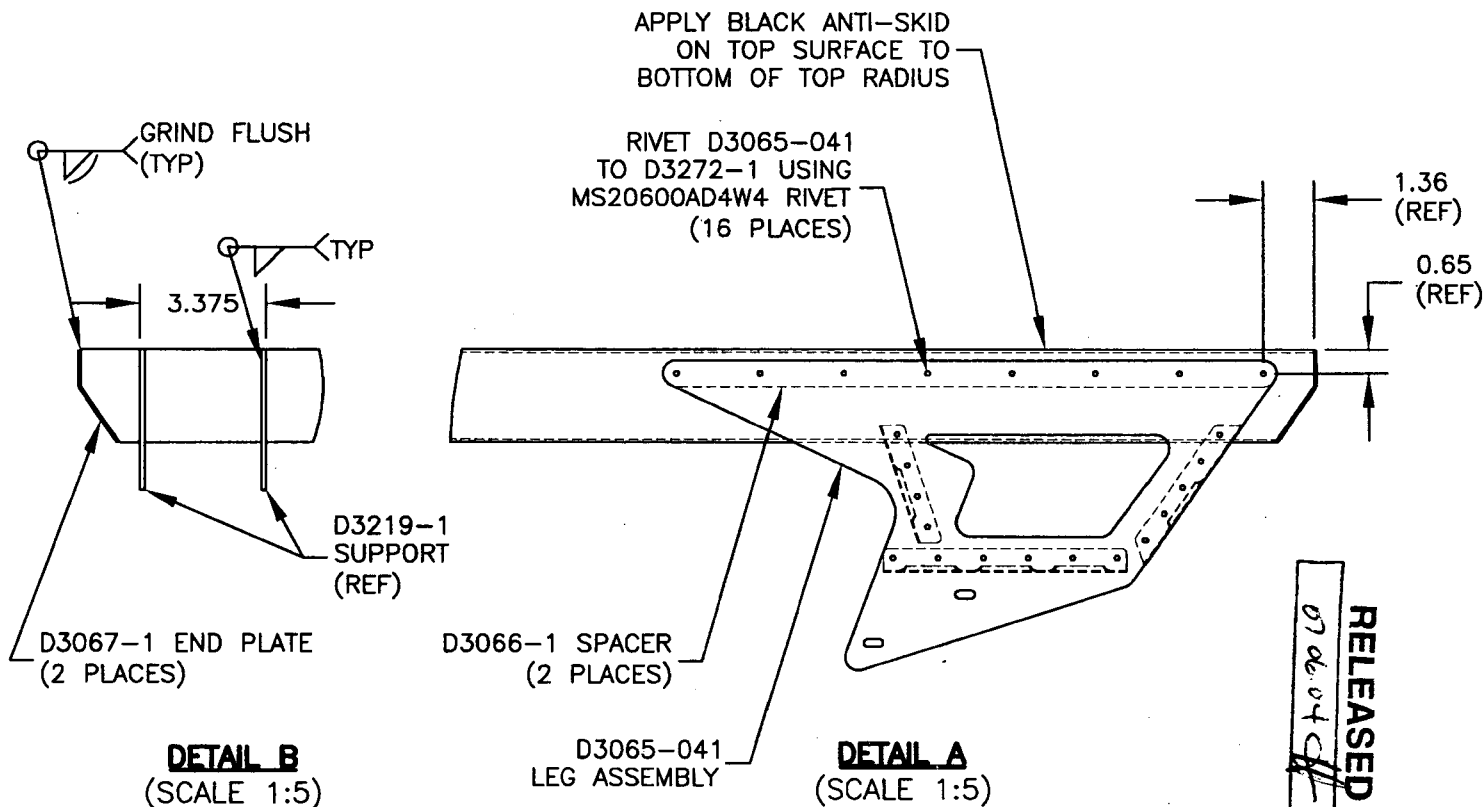
Shop Packet Print

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DART



D3272-041 STEP ASSEMBLY (LH. SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)



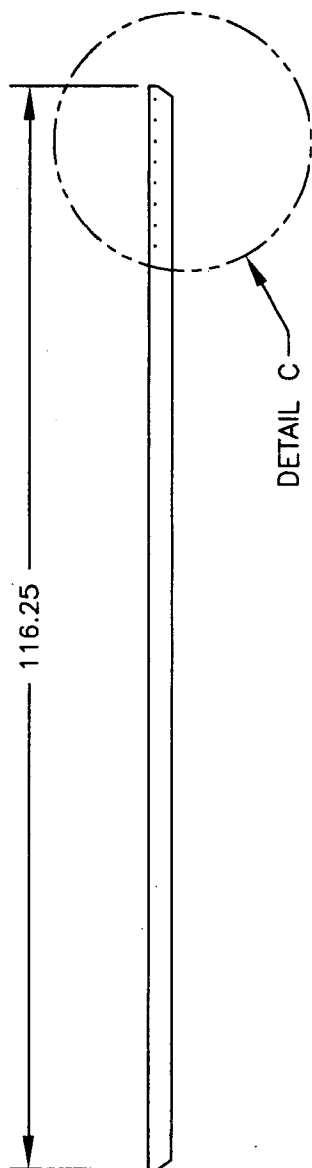
DESIGN	40	DRAWN BY	JR	DART AEROSPACE LTD
CHECKED	CE	APPROVED	[Signature]	HAMKESBURY, ONTARIO, CANADA
DATE	07.05.18	TITLE	D3272	REV. B
			STEP ASSEMBLY, HI LONG	SHEET 2 OF 3
				SCALE 1:20



DESIGN <i>qp</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

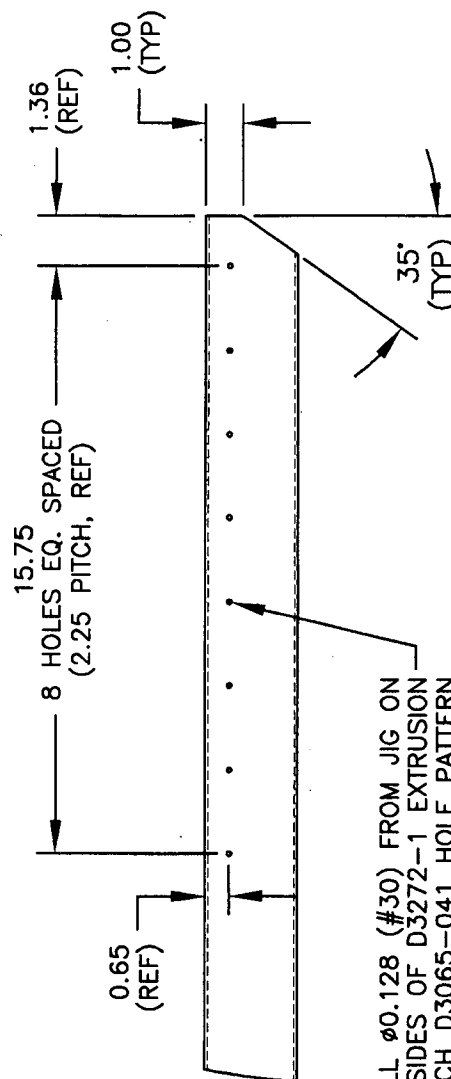
07.06.04 *[Signature]*



DETAIL C

B D3272-1 STEP

(MAKE FROM D2622-120 STEP EXTRUSION)



DRILL $\phi 0.128$ (#30) FROM JIG ON BOTH SIDES OF D3272-1 EXTRUSION TO MATCH D3065-041 HOLE PATTERN

DETAIL C
(SCALE 1:5)

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DESIGN <i>qp</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 2
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG SCALE NTS	
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED

07.06.04 *[Signature]*

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

△
B

GENERAL NOTES:

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

WLO 84064

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Qty -211	Qty -212	Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X								D350-591-211	Heli-Access-Step™, Long Step – High Skid, LH
	X							D350-591-212	Heli-Access-Step™, Long Step – High Skid, RH
		X						D350-591-213	Heli-Access-Step™, Short Step – High Skid, LH
			X					D350-591-214	Heli-Access-Step™, Short Step – High Skid, RH
				X				D350-591-215	Heli-Access-Step™, Short Step – Low Skid, LH
					X			D350-591-216	Heli-Access-Step™, Short Step – Low Skid, RH
						X		D350-591-311	Heli-Access-Step™, Long Step – High Skid, LH
							X	D350-591-312	Heli-Access-Step™, Long Step – High Skid, RH
1								D3070-041	STEP ASSEMBLY (HIGH-LONG, LH)
	1							D3070-042	STEP ASSEMBLY (HIGH-LONG, RH)
		1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
			1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
				1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
					1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
						1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
							1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
4	4							D2182B035	RUBBER CUSHION
		2	2	2	2			D2230-1	MOUNTING LUG
		2	2	2	2	4	4	D2230-3	MOUNTING LUG
8	8							D2274	RADIUS BLOCK
						2	2	D2618	BUSHING
4	4	4	4	4	4			D2732-030	CUSHION
2	2	1	1	1	1	2	2	D2856-400-720	ABRASION STRIP
2	2							D3064-1	CLAMP
1	1							D3079-041	SUPPORT ASSEMBLY
4	4							D3080-1	CLAMP
						2	2	D3235-1	MOUNTING LUG
						1	1	D3278-041	SUPPORT ASSEMBLY
2	2	2	2	2	2	2	2	AN3-35A	BOLT
10	10	2	2	2	2			AN4-11A	BOLT
		4	4	4	4	8	8	AN4-13A	BOLT
						2	2	AN5-36A	BOLT
4	4	4	4	4	4	4	4	AN960JD10	WASHER
20	20	12	12	12	12	16	16	AN960JD416	WASHER
						4	4	AN960JD516	WASHER
2	2	2	2	2	2	2	2	MS21042L3	NUT
10	10	6	6	6	6	8	8	MS21042L4	NUT
						2	2	MS21042L5	NUT
						1	1	*DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 21 for installation of the DSI 9410-011 Kit.